

REMARKS

At the outset, Applicants thank the Examiner for the courtesies extended to Applicants' representatives in an interview on August 18, 2004 and for the thorough review and consideration of the subject application. The Office Action of May 19, 2004 has been received and its contents carefully reviewed.

Claims 1, 2, 4, 5, 10, 12, 14, 16-18, 20, and 22 are hereby amended. Accordingly, claims 1-10, 12-18, and 20-25 are currently pending. Reexamination and reconsideration of the pending claims is respectfully requested.

In the Office Action, the Examiner rejected claims 2, 4, 5, 16, and 17 under 35 U.S.C. § 112, second paragraph, as lacking proper antecedent bases; and rejected claims 1-10, 12-18, and 20-25 under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention.

The rejection of claims 2, 4, 5, 16, and 17 under 35 U.S.C. § 112, second paragraph, as lacking proper antecedent bases is traversed and reconsideration is respectfully requested.

In rejecting to claim 2, the Examiner states that the element "the temperature" lacks antecedent basis. Further, in rejecting claims 4, 5, 16, and 17, the Examiner states that the element "the smectic phase" lacks antecedent basis. Applicants hereby amend claims 2, 4, 5, 16, and 17 to more clearly define the present invention and respectfully request withdrawal of the present rejection to claims 2, 4, 5, 16, and 17.

The rejection of 1-10, 12-18, and 20-25 under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention, is traversed and reconsideration is respectfully requested.

In rejecting claims 1-10, 12-18, and 20-25 under 35 U.S.C. §112, first paragraph, the Examiner alleges “[t]he specification does not disclose the composition of the ferroelectric liquid crystal (FLC) material which still maintains the smectic phase when the liquid crystal panel is cooled to -20 degrees so as to produce monostable alignment of... [ferroelectric] liquid crystal, then substantially heated to room temperature.” Concluding the rejection, the Examiner asserts “[t]his composition of the FLC material is essential to support the claimed invention.”

An application need not explain every detail since the Applicant is speaking to those skilled in the art. *DeGeorge v. Bernier*, 768 F.2d 1318, 226 USPQ 758 (Fed. Cir. 1985). Not every last detail is to be described, else patent specifications would turn into production specifications, which they were never intended to be. *In re Gay*, 309 F.2d 769, 774, 50 CCPA 725, 733, 135 USPQ 311, 316 (CCPA 1962). Accordingly, the enablement requirement of 35 U.S.C. § 112, first paragraph, requires that the specification adequately discloses to one skilled in the art how to make and/or use the claimed invention without undue experimentation. *Process Control Corp. v. Hydrex Corp.*, 190 F.3d 1350, 52 USPQ2d 1029 (Fed. Cir. 1999). Whether undue experimentation is needed is a conclusion reached by weighing many factual considerations (i.e., quantity of experimentation necessary, amount of direction or guidance presented, presence or absence of working examples, nature of the invention, state of the prior art, relative skill of those in the art, predictability or unpredictability of the art, and breadth of the claims). *In re Wands*, 858 F.2d 731, 8 USPQ2d 1400 (Fed. Cir. 1988).

In view of the above, Applicants respectfully submit that the grounds for the Examiner’s non-enablement rejection (i.e., merely that the “composition of the FLC material, which is essential to make and/or use the claimed invention, is not disclosed... in the

specification”) cannot support any reasonable basis with which to question the enablement provided for the claimed invention because such grounds fails to establish that one of ordinary skill in the art could not make and/or use the invention without undue experimentation. Stated another way, merely stating that the “composition of the FLC material, which is essential to make and/or use the claimed invention, is not disclosed... in the specification” fails to establish that one of ordinary skill in the art could not make and/or use the invention without undue experimentation. For at least these reasons, Applicants respectfully request withdrawal of the present rejection under 35 U.S.C. § 112, first paragraph.

In the “Response to Arguments” section of the present Office Action, the Examiner asserts that a reasonable basis with which to question the enablement provided for the claimed invention has been established because the present specification does not disclose a specific composition of FLC material. In view of the arguments presented above, however, Applicants respectfully submit citing items not disclosed in the specification, without more, fails to establish a *prima facie* case of non-enablement.

Further in the “Response to Arguments” section of the present Office Action, the Examiner acknowledges “various types of FLC have crystalline phase transitions occurring over a range of well documented temperatures” and states “the Examiner would like to know what type of FLC which still maintains the smectic phase when cooled to -20 degrees C” and “the Examiner has still not known what type of FLC material exhibiting those characteristics which are well known to those of ordinary skill in the art.”

Applicants respectfully submit the purpose of 35 U.S.C. § 112, first paragraph, is not to satisfy curiosities held by the Examiner. Rather, requiring the specification to describe the invention in such terms that one skilled in the art can make and use the claimed invention, 35

U.S.C. § 112, first paragraph, ensures that the invention will be communicated to the interested public in a meaningful way. The purpose of the enablement requirement is to assure that the Applicants provide sufficient information about the claimed invention that a person of skill in the field of the invention can make and use it without undue experimentation, relying on the specification and the knowledge in the art.

Applicants respectfully reiterate that one of ordinary skill in the art would readily recognize (i.e., without undue experimentation) compositions of FLC material that exhibit the characteristics compatible with the principles of the present invention. Moreover, Applicants respectfully reiterate that the specification of the present application actually does disclose a material capable of exhibiting characteristics that are compatible with the principles of the present invention even though it is not explicitly stated as such because one of ordinary skill in the art would understand that the disclosed material exhibits the characteristics at issue.

Lastly, Applicants respectfully note that the subject matter which forms the basis of the present rejection under 35 U.S.C. § 112, first paragraph, (i.e., “the composition of the ...(FLC) material which ...maintains the smectic phase when the liquid crystal panel is cooled to [-20°C] to produce monostable alignment of ferroelectric liquid crystal”) is not found in any of claims 1-22. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 1-22 under 35 U.S.C. § 112, first paragraph, for at least this reason.

In the “Response to Arguments” section of the present Office Action, the Examiner acknowledges that claims 1, 10, and 18 recite elements such as “cooling the liquid crystal panel so as to produce monostable alignment of the ferroelectric liquid crystal” and “cooling the liquid crystal layer to form a monostable alignment of the liquid crystal molecules” and that “the cooling temperature of -20 degrees C as well as the smectic phase of the instant invention are found in the dependent claims 2, 4, 5, 14, 16, 17 and 20-22.”

It is respectfully submitted that claims 2, 4, 5, 14, 16, 17 and 20-22 do not recite "the cooling temperature of -20 degrees C as well as the smectic phase" as asserted by the Examiner. Rather, claims 2 and 14 indicate that the temperature to which the liquid crystal panel is cooled is around -20°C; and claims 4, 5, 16, 17, and 20-22 indicate the phase produced within the liquid crystal layer upon performing the cooling. Accordingly, Applicants respectfully submit that none of the claims as presented above actually disclose elements constituting the basis of the present rejection under 35 U.S.C. § 112, first paragraph (i.e., FLC material that maintains a smectic phase when the liquid crystal panel is cooled to -20°C).

Applicants believe the application in condition for allowance and early, favorable action is respectfully solicited. If the Examiner deems that a telephone conversation would further the prosecution of this application, the Examiner is invited to call the undersigned at (202) 496-7500.


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Reply dated August 19, 2004
Reply to Office Action of May 19, 2004

Docket No.: 8733.373.00

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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